

INFORMATION REPORT INFORMATION REPORT

CENTRAL INTELLIGENCE AGENCY

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COUNTRY USSR (Moscow Oblast)

REPORT

SUBJECT Krasnyy Proletariy Machine Tool
Building Plant in Moscow

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REFERENCES

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SOURCE EVALUATIONS ARE DEFINITIVE. APPRAISAL OF CONTENT IS TENTATIVE

A report containing a description of some of the products produced, miscellaneous information, and sketches of the Krasnyy Proletariy Machine Tool Building Plant in Moscow

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Sketch No. 1: Location of Krasnyy Proletariy Lathe Plant in Moscow

Sketch No. 2: Plant layout

Sketch No. 3: Machine shop No. 2

Sketch No. 4: Second floor of machine shop No. 2

Sketch No. 5: Crating and paint shop (two stories)

Sketch No. 6: Transformer station

Sketch No. 7: Central heating plant

Sketch No. 8: Machine, foundry, and bronze pattern shop

Sketch No. 9: Technical and experimental lathe laboratory, pattern shop, infirmary, and rest home (building No. 15)

Sketch No. 10: Electric repair and assembly shop

Sketch No. 11: Electric repair shop and storerooms (second story)

Sketch No. 12: Repair and spare parts shop for lathe shop No. 1 (two stories)

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(Note: Washington distribution indicated by "X"; Field distribution by "#".)

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ENCLOSURE ATTACHED
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Sketch No. 13: Die-stamping without patterns shop

Sketch No. 14: Fitting and assembly shop for apparatus

Sketch No. 15: Saw, straightening, and die-stamping with

Sketch No. 16: Carpentry, boiler, and engraving shop

Sketch No. 17: Heating section and compressor shop building

Sketch No. 18: Instrument shop (first floor)

Sketch No. 19: Pattern shop for mass production

Sketch No. 20: Cutters with compressed ceramic tips

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KRASNY PROLETARIY LATHE PLANT IN MOSCOWGeneral

1. The Krasny Proletariy Lathe Plant was located south of Moscow, in the Leninskiy rayon on flat terrain in an urban area. The plant was bordered by Donskaya ulitsa, Mala Kaluzhskaya ulitsa, and Donskoy prospekt. (See [] sketch No. 1 on page 15, showing the plant's location.) Gorkiy Park and the Donskoy Monastery were situated near the plant which was approximately one kilometer east of the Moskva River. The nearest subway station was one kilometer away in the Oktyabrskaya ploshchad. The plant's three-kilometer perimeter was surrounded by a 2.5-meter-high wall. Ordinarily, only three of the plant's six entrances (including the railroad entrance) were used. The plant's main axis was in a north-south direction.

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Plant Layout

2. Most of the plant's brick, fire-resistant structures with sky-lights and sheet metal roofs were two stories high. Some buildings had basements. The points below, giving details of the plant layout, refer to [] sketch No. 2 on page 16.
 - (1) Machine and special lathe assembly shop No. 3. [] a special machine, to be used in the construction of reinforced concrete. [] This shop employed 150 workers in two shifts. (See [] sketch No. 4 on page 18.)
 - (2) Machine and assembly shop No. 1 for standard mass-produced lathes. Two hundred workers were employed in this shop on two shifts.
 - (3) Mass-produced lathe machine shop No. 2. The administration offices were also located in this four-story structure. (See legend No. 3 on page 7, for [] sketch No. 3 on page 17.)
 - (4) Assembly shop No. 2. Machine and assembly shops No. 2 employed 500 workers.
 - (5) Paint and crating shops. (See [] sketch No. 5 on page 19.)
 - (6) Electric transformer station. (See legend No. 6 on page 8, for [] sketch No. 6 on page 20.)
 - (7) Coal-fueled steam heating system. (See legend No. 7 on page 8, for [] sketch No. 7 of heating plant on page 21.)
 - (8) Cylinder cleaning and polishing shop.
 - (9) Die-stamping shop.

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- (10) Metal-cutting saws.
- (11) Machine, foundry, bronze pattern shops and bachelors' quarters. This was a three-story structure. (See legend No. 8 on page 8, for [] sketch No. 8 on page 22.) 25X1
- (12) Collective dining room.
- (13) Garage and vehicle repair and maintenance shop.
- (14) Guard and fire brigade quarters.
- (15) Laboratory and pattern shop. Infirmary and rest home were also located in this two-story structure. (See legend No. 9 on page 9, for [] sketch No. 9 on page 23.) 25X1
- (16) Electrical repair and assembly shop. (See legend No. 10 on page 11, for [] sketches No. 10 and No. 11 on pages 24 and 25.) 25X1
- (17) Laboratory, repair and spare parts shop for lathe shop No. 1. (See [] sketch No. 12 on page 26.) 25X1
- (18) Die-stamping "without pattern" shop and fitting and assembly shop. (See legend No. 13 on page 12, for [] sketch No. 13 on page 27.) 25X1
- (19) This building contained the saw, straightening, and die-stamping "with pattern" shop, and a fitting and assembly shop. (See legends Nos. 14 and 15 on page 12-13 for [] sketches Nos. 14 and 15 on pages 28 and 29.) 25X1
- (20) Carpentry, boiler, and engraving shops. (See legend No. 16 on page 13, for [] sketch No. 16 on page 30.) 25X1
- (21) Compressor shop. (See legend No. 17 on page 14, for [] sketch No. 17 on page 31.) 25X1
- (22) Auxiliary heating plant. (See [] sketch No. 17 on page 31.) 25X1
- (23) Instrument shop and pattern shop. (See [] sketches Nos. 18 and 19 on pages 32 and 33, for description of these shops.) 25X1
- (24) Base fitting shop.
- (25) Club, formerly a chapel.
- (26) Apprentice's school.
- (27) Lavatories and showers.
- (28) Clinic. 25X1

Plant Machinery

3. [] the majority was of Soviet-make, of good quality and in good condition. There were no machines for stretching or shaping metal in [] shop (machine shop No. 2) [] 25X1
- [] In machine

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shop No. 1 there was a machine called a bedframe tempering machine which had been designed and manufactured in the plant. This machine had a high-tension electrical device which tempered the lathe bedframes by heating the outer surface to a certain temperature and then spraying the bedframes with water.

Ceramic Cutting Blades

4. [] a new type of cutter with a ceramic tip for hard metals such as wrought iron, cast iron or any smooth metal. (See [] sketch No. 20 on page 34, of ceramic cutting blade.)

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Types of Lathes Produced at Plant

5. The plant mass-produced approximately 900 lathes per month which were marked with the plant name, year of manufacture, and serial number. Lathe model characteristics were as follows:
- a. 1A62 - maximum of 1200 revolutions per minute.
 - b. 1K62 (year 1956) - maximum of 2000 revolutions per minute. High speeds were not usually employed except in case of urgency and when the metals to be worked were suitable for that speed.
 - c. 1620 or 1622 - maximum of 3000 revolutions per minute. Video cutting blades were used in these lathes.

Other Plant Products

6. In addition to lathes this plant also manufactured padlocks and musical toy tops which were die-stamped from sheet metal. A wooden handle worked the spring inside the top which made it rotate. This spun the top which made musical sounds as air passed through the perforations in the sheet metal exterior.

Materials

7. Material brought from other plants was already smelted and ready to use. [] cast iron, wrought iron, and steel was brought in from an unidentified foundry. Lubricating oils, thick greases, linseed oils for paint, colophonite, minium, white lead, paper, nails, bronze, aluminum, coal, and other materials were brought in from unidentified centers by train and truck.

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Water and Power Supply

8. [] the city water supply which served the plant was adequate. The electric current was 380 volts for machines and 36 volts for light. [] the electrical supply was sufficient.

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Packing

9. The finished machinery was wrapped in tar paper and packed in wooden crates. A picture of a cup was stamped on the crate to indicate right side up. [] the shipping address was on the machines []

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Transportation

10. The plant used both railroad and vehicle transportation which was described as follows: The plant standard Soviet-gauge railroad siding which connected with the main railroad line entered the premises on the south side of the plant and then branched in two directions; one siding led to the assembly shop No. 2 and the other ran between machine shop No. 1 and machine shop No. 2 where the bedframes were manufactured. The plant used two types of freight cars: modern metal 60-capacity cars with four wheels and outdated wooden cars. [] the frequency of arrival and departure of trains nor the size of the load they carried. [] the cars could be loaded from either the front or side. Loading cranes were located next to the mechanical saws. The plant owned a garage with repair and maintenance shop, and about 20 vehicles including a bus. Plant traffic used Donskaya ulitsa and Donskoy prospekt. The former was eight meters wide and asphalt paved, the latter was six meters wide and cobblestone paved; both streets had good drainage systems.

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Storage

11. No separate warehouse existed but each shop had small storerooms for equipment such as spare parts, tools, instruments and work clothes. [] the instruments store room was the most important. Coal was stored next to the plant's railway siding.

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Working Conditions

12. Employees worked a 45-hour work week on one of three shifts. (Not all shops worked three shifts) The first shift worked eight hours with one hour for lunch, and the second and third shifts worked seven and a half hours with a half hour for lunch. The majority of personnel worked the first shift; less personnel worked the second shift and very few worked the third shift. In addition to Sundays and holidays, 15 to 24-day vacations (depending upon the job) were granted. []

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[] Sanitary conditions were good. The plant had good ventilation, light, and was not humid. During winter there was adequate heat and in summer exhaust fans were available. Each shop had a first aid station for minor cases. More serious cases were taken to the polyclinic, the infirmary or the rest home.

Security and Fire Prevention

13. During the day, an undetermined number of plant-employed, armed guards were stationed at all entrances including the railway entrance. These guards were quartered in a building located in the center of the plant area. Each worker was documented with a pass with photograph, first and last name, and name of shop or shop building where he was employed. This pass had to be presented to the guards at the entrances. A note of authorization was required to enter or leave the plant during working hours. Personnel had access to all parts of the plant. [] the plant employed a fire brigade [] Each shop contained such fire-fighting equipment as fire extinguishers and boxes of sand.

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Personnel and Organization

14. About 5,000 workers were employed at the plant in approximately 25 shops. The plant director's name was Surguchov. [] the director was a kind, understanding person. The laboratory chief was Ukrainian. [] he was a good, competent, and sociable person although he could not remember his name. There were no strikes and [] no complaints about working conditions.

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Study Center

15. A study center was located on Savolokaya ulitsa and Donskoy prospekt. This state-owned school for apprentices was four stories high. A technician gave classes to students in the city in the morning and to plant workers in the afternoon.

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War Production and Automation

16. [] existing plant machinery could be converted to war production [] or [] military equipment being manufactured or repaired in the plant. [] no plans to convert to electronic automation.

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Legend for sketch No. 3 of machine shop No. 2

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Machine shop No. 2 was divided into seven sections. About 150 machines plus "light" hand and automatic cranes were located here. The shop employed about 500 workers.

1. Chief, offices, tools, plans, sanitary services.
2. Repair shop.
3. Hall.
4. Work benches.
5. Reamer section.
6. Planer section.
7. Lathe, vertical lathe, and "large" milling machine section.
8. Lathe and truing machine section.
9. "Small" lathe section.
10. Grinders and drill section.
11. Milling machines.
12. Chromium plating shop.
- 13 and 14. Polishing machine shop.
15. Casting shop.
16. Hall.
17. Drills.
18. Cutting machines.
19. "Small" milling machines.
20. Entrance to assembly shop No. 2.
21. Machine shop No. 1 work benches, located on balcony overlooking first floor.

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Legend for [] sketch No. 6 of electric transformer station
on page 20.

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1. Four 380-volt transformers.
2. Control and distribution switchboard for 380-volt distribution.
3. Control and distribution switchboard (not further identified).
4. Two 220-volt transformers.
5. One DC Converter.
6. Control office and tool department.

Legend for [] sketch No. 7 of heating plant on page 21.

25X1

1. Five boilers
2. Five coal bins.
3. Distribution valve section.
4. Four feed motors.
5. Control.
6. Open dumps.

Legend for [] sketch No. 8 of machine, foundry, and bronze
pattern shop on page 22.

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This was a three story building which also contained the bachelors quarters.

1. Storeroom.
2. Stairway to bachelor's quarters.
3. Machine shop. Twenty Soviet-make lathes were located here.
4. Six pattern shops.
5. Three blast furnaces.

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sketch No. 9 of technical and experimental lathe laboratory, pattern shop, infirmary and rest home on page 23.

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Infirmary

1. Doctor.
2. Office.
3. Nurses.
4. Wardroom with approximately 35 beds.
5. Door which led to basement.
6. DOSAAF conference room.
7. Hydrotherapy room.
8. Kitchens which served infirmary and resthome.
9. Hall.
10. Therapy and radiotherapy room.
11. Stairway and vestibule.

Technical and Experimental Lathe Laboratory

The laboratory, which was divided into two sections (The Technical and Experimental), employed the following personnel: a shop chief, two qualified assistants (one for each section), from seven to ten technicians, one storeroom attendant, two cleaning women and from 30 to 40 workers.

12. Work benches.
13. Two measurement control tables.
14. Three testing benches.
15. Machine shop. This shop contained two drills, three milling machines, one special lathe, one automatic lathe, type 1A62, two US cutters (not further identified), one standard lathe type 1A62, and one GUSLOV lathe.
16. Office for one assistant and four experts.
17. Hall.
18. Grinder (not further identified), not located on sketch.
19. Storeroom.
20. Experimental shop. Three GUSLOV WERKER lathes, three drills of various sizes, five Soviet-make lathes type 1A62, one 1956 model automatic lathe type 1K62, one milling machine, one gear cutter, one reamer, one scales, one measuring table.
21. Offices.
22. Electrician.
23. Garage and shop for repairing electric platform cars.

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Rest Home

24. Wardrobe room. Radiotherapy and electrotherapy rooms.
25. Dormitories and baths which served about 80 people.
26. Offices.
27. Reception room.
28. Recreation room.
29. Dining room and kitchens.
30. Lavatories.
31. Stairway.
32. Dormitories.

Pattern Shop

This shop produced the patterns for the molds used in the mass production of lathe parts in machine shop No. 1. Parts for the musical tops were also produced here. Eighty workers were employed in this shop.

33. Tools.
34. Machine shop. Three lathes, three saws, three planes, three drills, and 50 work benches.
35. Chief and offices.
36. Painting section.

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Legend for [] sketch No. 10 of electric repair and assembly shop on page 24.

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1. Paint section.
2. Storeroom.
3. Axle bearings.
4. Axle drum device.
5. Paint storeroom.
6. Fitting section.
7. Finished parts.
8. Work bench.
9. Machine shop. One milling machine, one plane, two Soviet-make lathes type 1A62.
10. Apparatus (not further identified).
11. Fitters.
12. Switchboard assembly.
13. Padlock assembly.
14. Fitters.
15. Hall.
16. Motor storeroom.
17. Tools.
18. Work bench.
19. Machine shop. One [] milling machine, one plane, one grinder, three Soviet-make lathes type 1A62.
20. Equipment shelves.
21. Solderers.
22. Shop which contained two hand presses, cutter, saw, drill, and a grinder.
23. Level table.
24. Work and inspection tables.
25. Elevator.
26. Hall.
27. Electricians.

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28. Test work bench.
29. Cable cabinet.
30. Coil winders. Three work tables.
31. Motor testing.
32. Motor assembly, 500-kilogram crane, one drill.
33. Electricians and mechanics.
34. Dryer.
35. Motor and ventilator dryer.
36. Insulated work bench.
37. Classifying table.
38. Equipment for classifying and drying.
39. Minute parts cleaning section.
40. Lavatories.

See sketch No. 11 on page 25, for description of second story of this building which contained electric repair shop and storeroom.

Legend for [] sketch No. 13 of die-stamping without patterns shop.

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1. Nine cold presses.
2. Die-stamping shop. Three 1500-kilogram-capacity presses, three 2000-kilogram-capacity presses and various 500-kilogram-capacity presses were located here.
3. One drill.
4. "Large" press section.
5. Office and die-stamping shop storeroom.

Legend to [] sketch No. 14 showing fitting and assembly shop.

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1. Paint section.
2. Tool cabinet assembly section.
3. Manufacture of musical tops.
4. Twenty mechanical presses.
5. Electric welding section.

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Legend to [] sketch No. 15 of saw, straightening, and die-stamping with pattern shop.

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1. Section with seven saws.
2. Equipment section.
3. Section where eight straightening machines were located.
4. Four die-stamping "with pattern" machines.
5. Drop hammer section. Three drop hammers of 1000 kilogram capacity, one of 1500 kilogram capacity, one of 2000 kilogram capacity and five die-stamping tables were located here.

Legend to [] sketch No. 16 of carpentry and boiler shops.

25X1

1. Three wood saws.
2. Chief's office.
3. Three wood planers.
4. Assembly and wood framework.
5. Three polishing machines.
6. Nine work benches.
7. Electric casting of metal to make locks.
8. Shop for engraving serial numbers and other characteristics on finished machines.
9. Storeroom.
10. Office.
11. Carpentry shop office.
12. Wood drying shed.
13. Corridor to entrance room.
14. Sheet metal cutters. Two grinders.
15. Five electric welding machines.

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Legend No. 17 for [] sketch on page 31 of heating section and compressor shop building.

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Ten workers were employed in the compressor shop and 20 in the heating sections.

1. Chief's office.
2. "Small" compressor, 100/HP and 75 KW electric motor.
3. "Large" compressor, 200/HP and 230 KW electric motor.
4. Two compressors.
5. Two transformers.
6. Distribution control.
7. Feed pumps. Heating plant.
8. Two coal bins.
9. Three boilers.
10. Distribution valves.
11. Tool storeroom.

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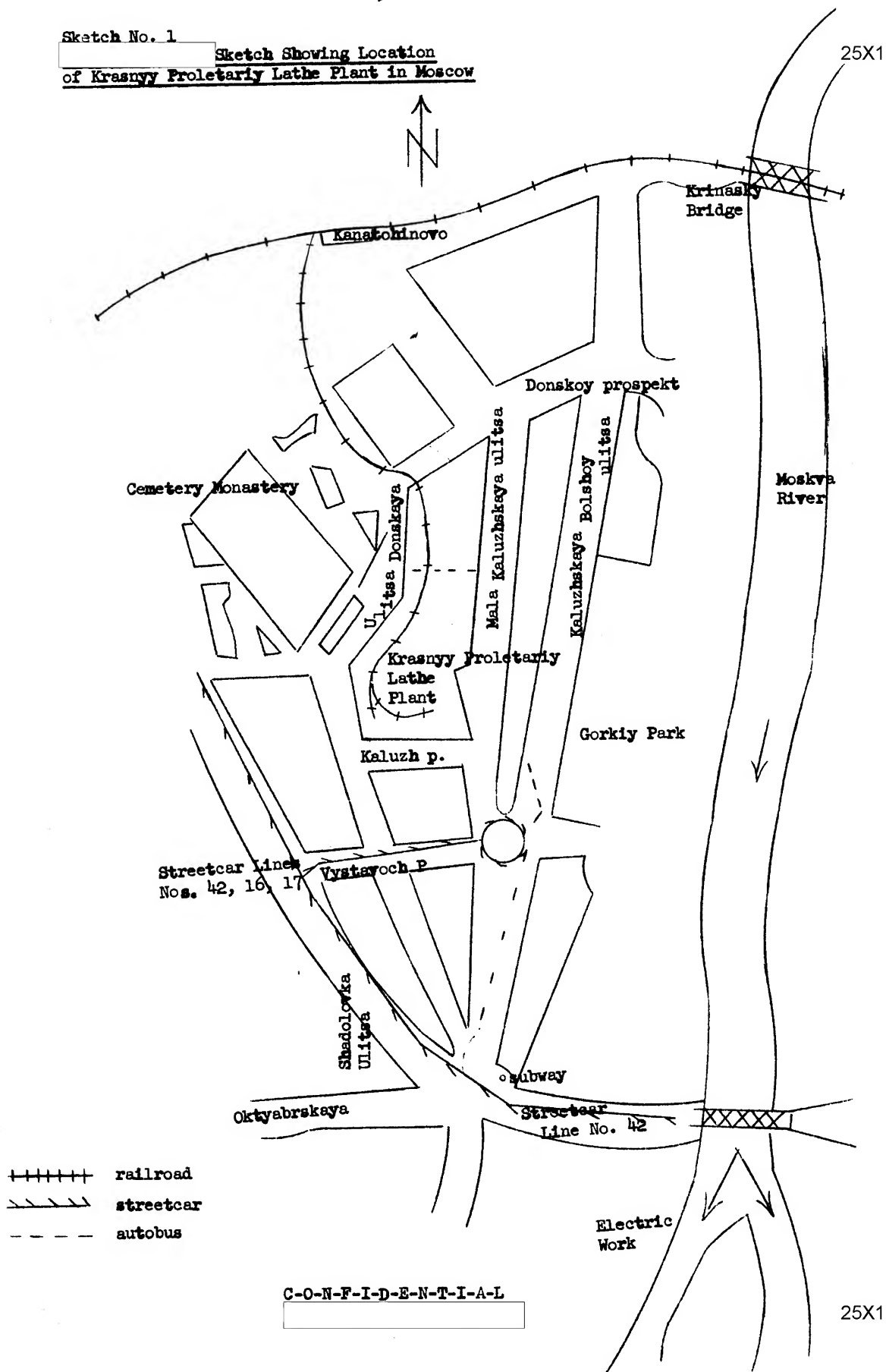
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Sketch No. 1

Sketch Showing Location
of Krasny Proletariy Lathe Plant in Moscow

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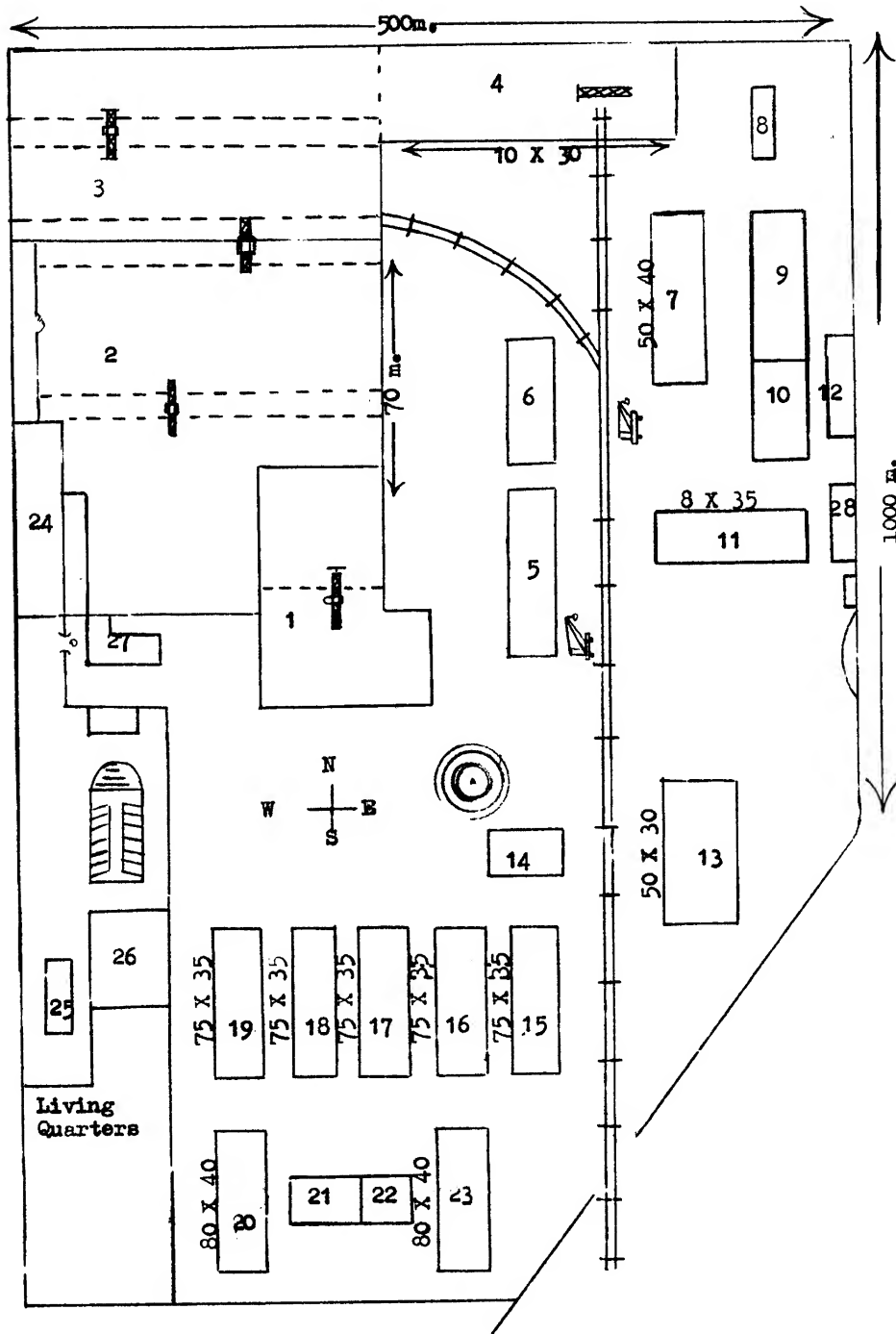
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~~C O N F I D E N T I A L~~

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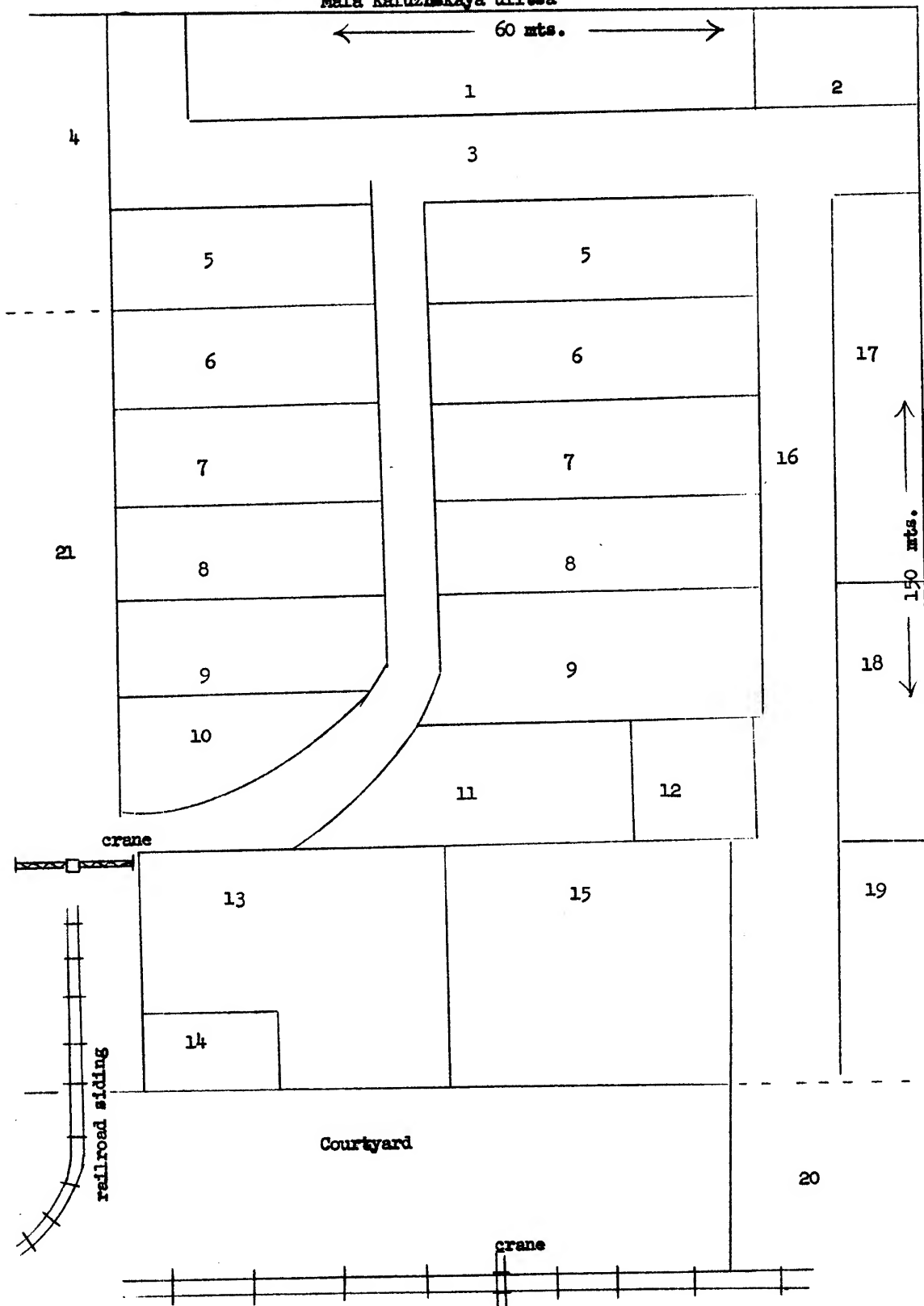
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Sketch No. 3

Sketch of Krasny Proletariy Lathe Plant, Shop No. 2

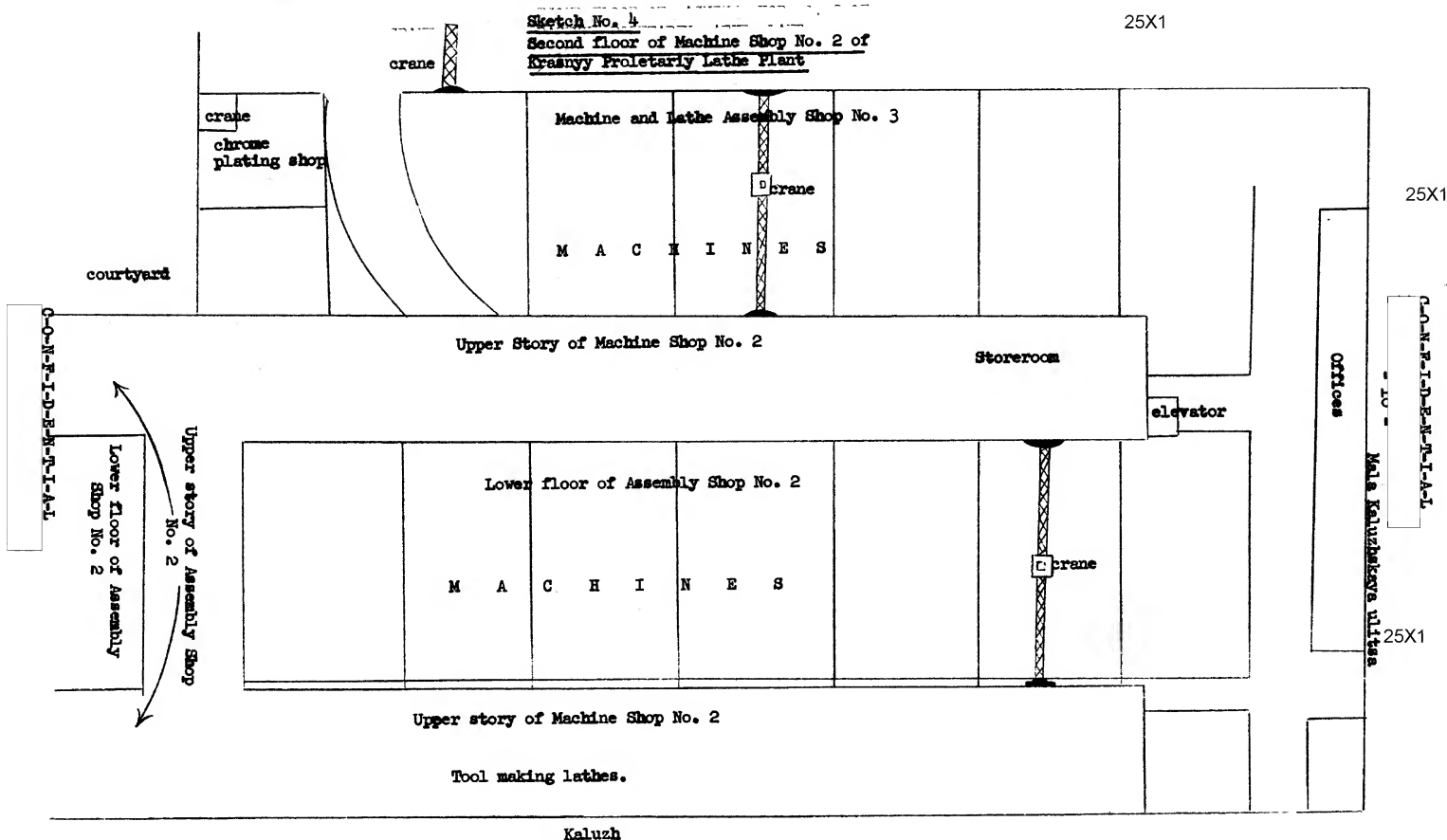
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Mala Kaluzhskaya ulitsa



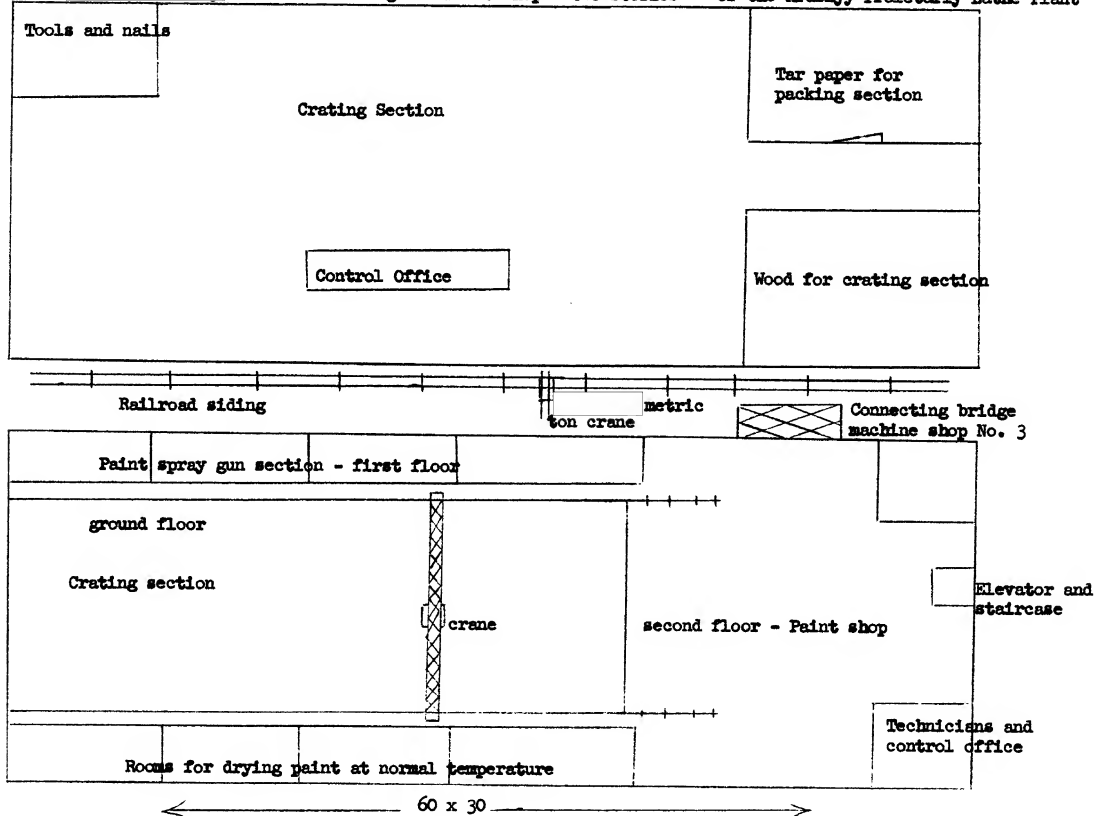
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Sketch No. 5

Sketch of Crating and Paint Shop - two stories - of the Krasny Proletary Lathe Plant



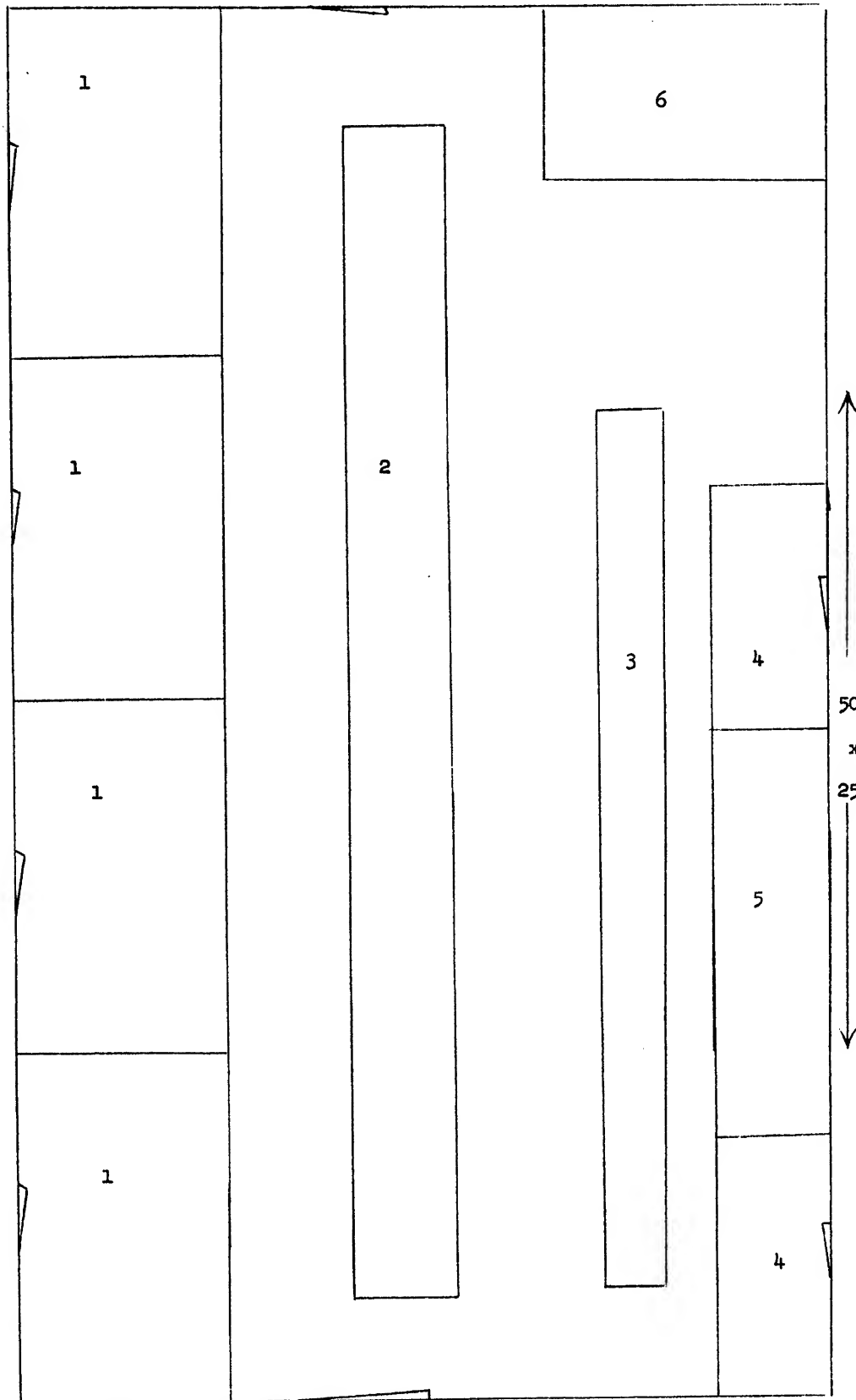
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Sketch No. 6

Transformer Station of Krasny Proletariy Lathe Plant



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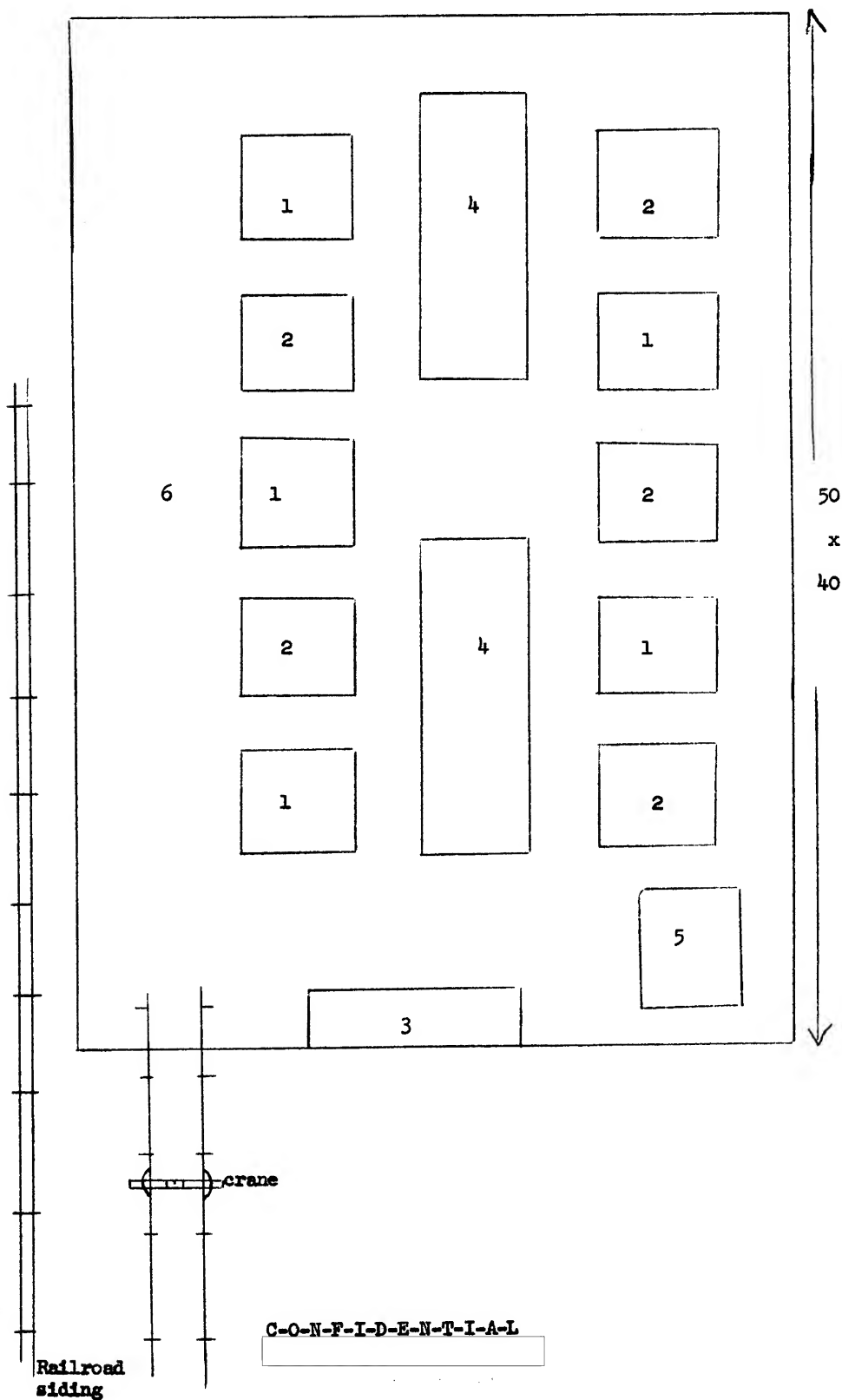
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Sketch No. 7

Central Heating Plant of Krasnyy Proletariy Lathe Plant



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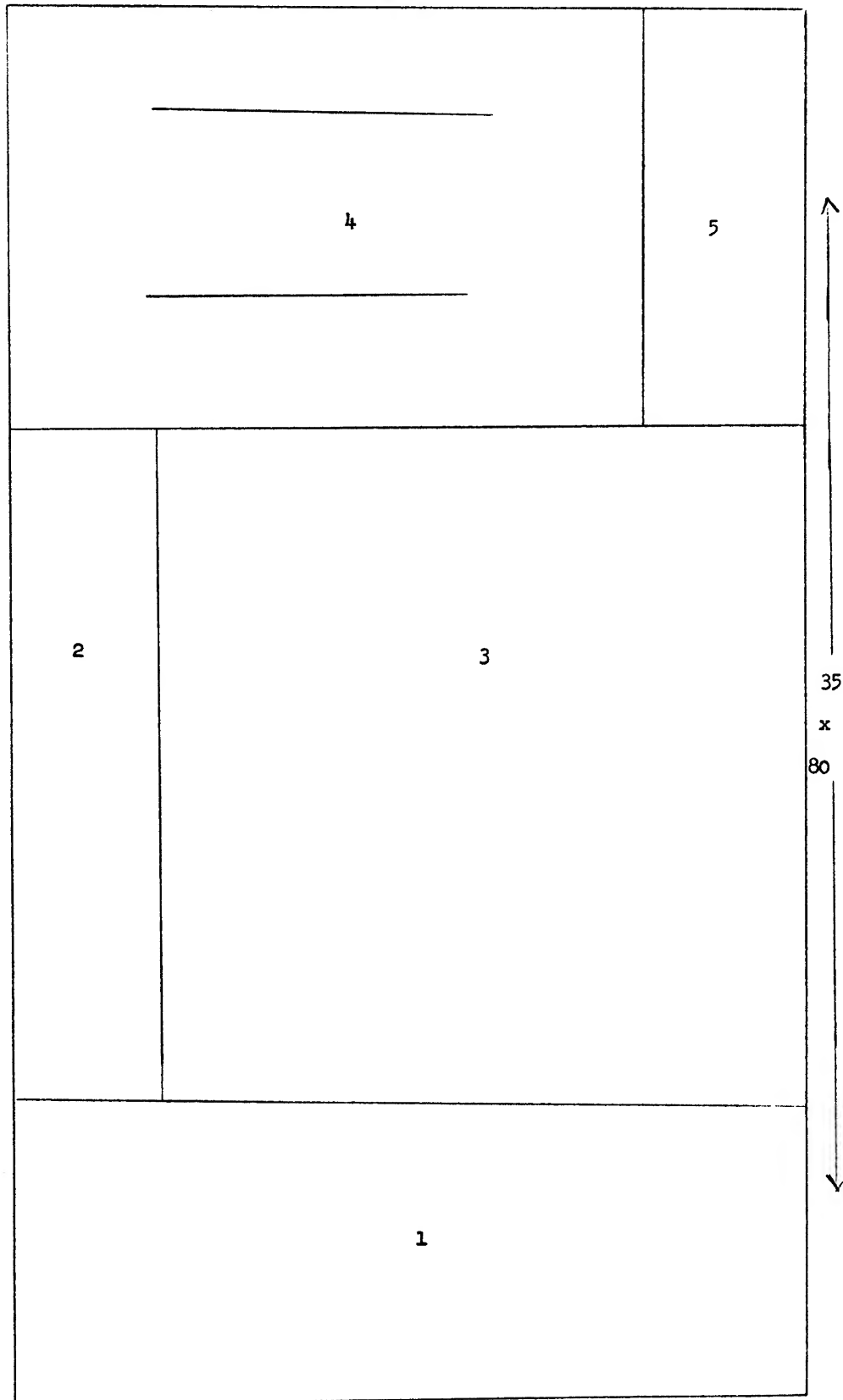
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Sketch No. 8

Krasnyy Proletariy Lathe Plant - 22 -
Machine, Foundry, and Bronze Pattern Shop

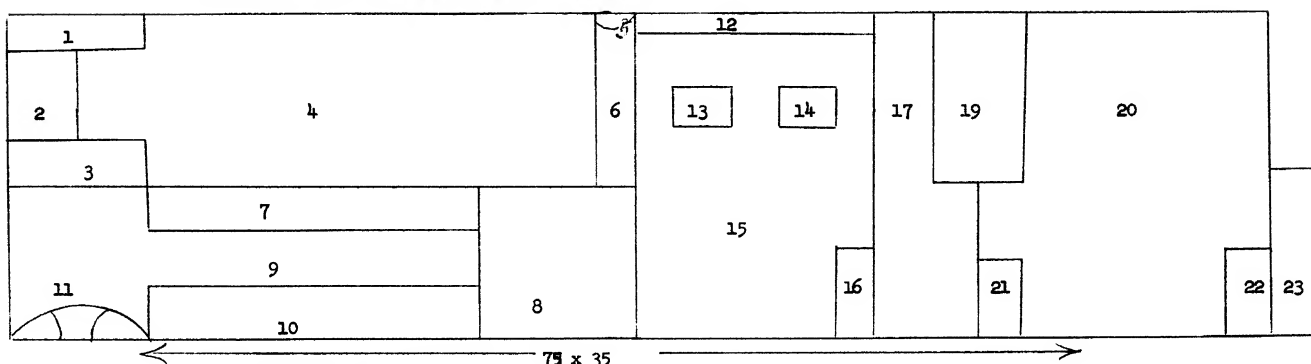


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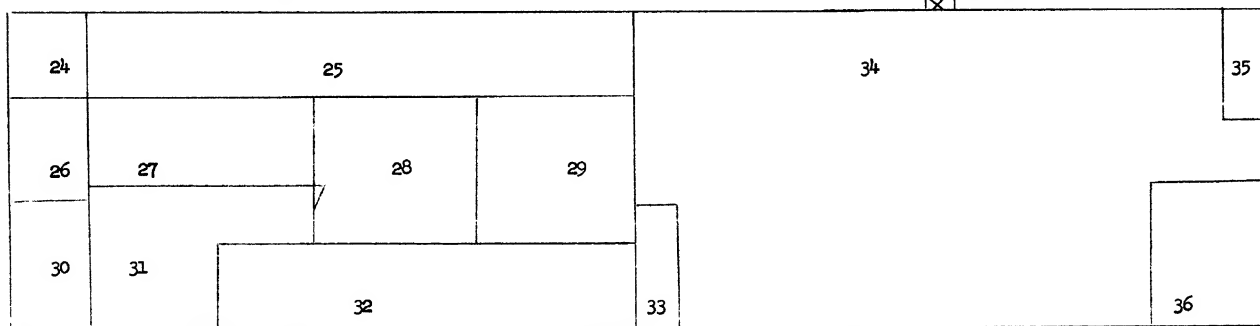
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Sketch No. 9

Krasny Proletariy Lathe Plant
Building No. 15 - two stories and basements

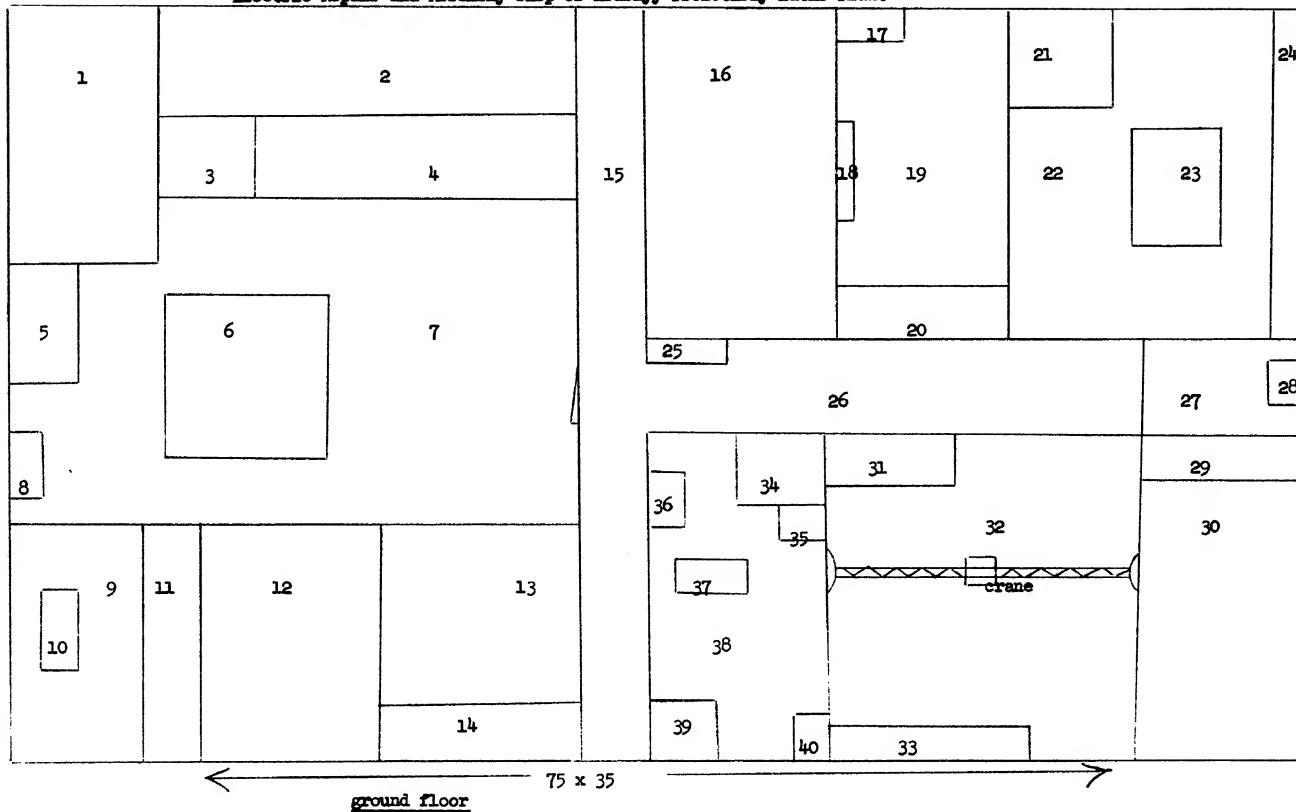


first floor

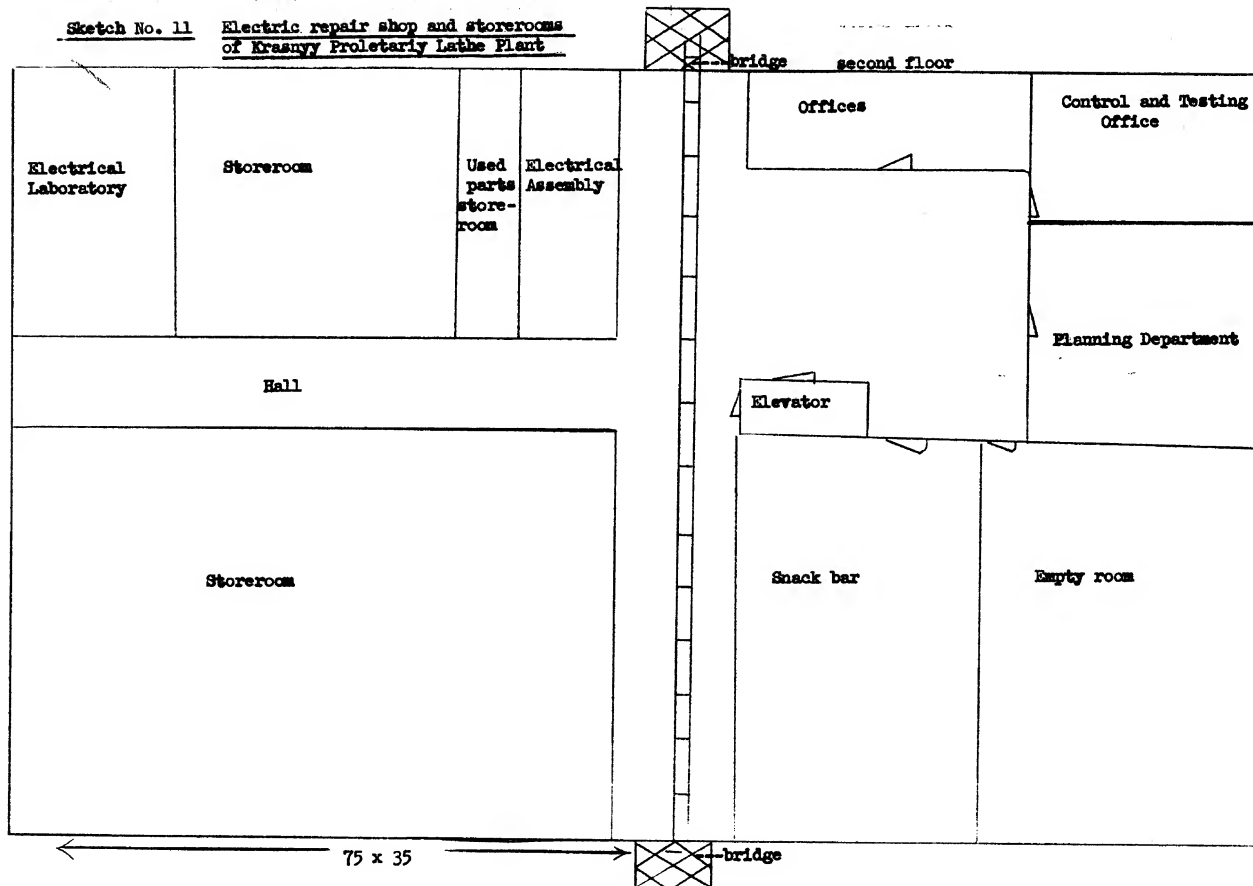


second floor

Sketch No. 10
Electric Repair and Assembly shop of Krasny Proletariy Lath Plant



Sketch No. 11 Electric repair shop and storerooms
of Krasny Proletariy Lathe Plant



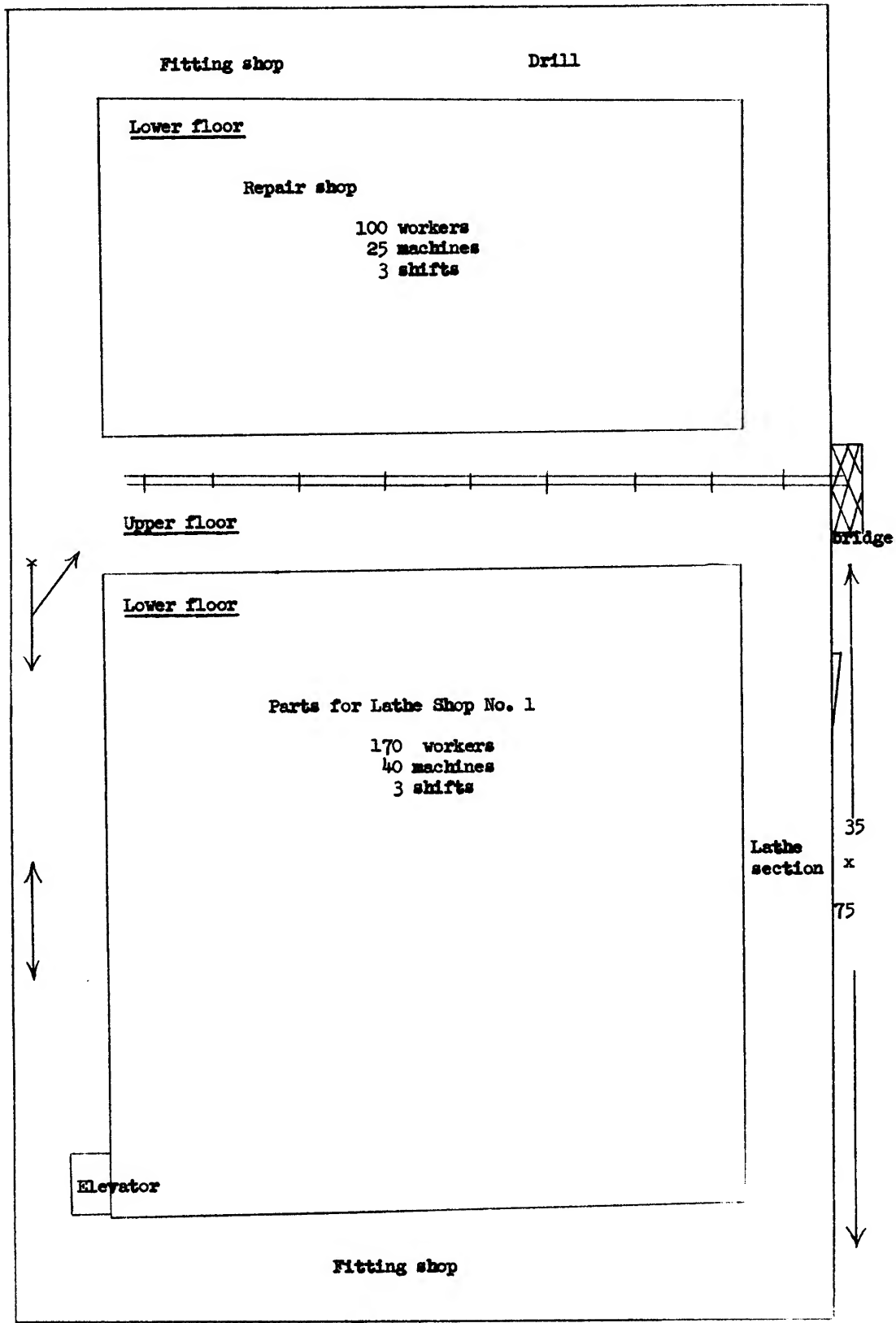
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Sketch No. 12

Repair and Spare Parts Shop for Lathe Shop No. 1 -- two stories



C-O-N-F-I-D-E-N-T-I-A-L

25X1

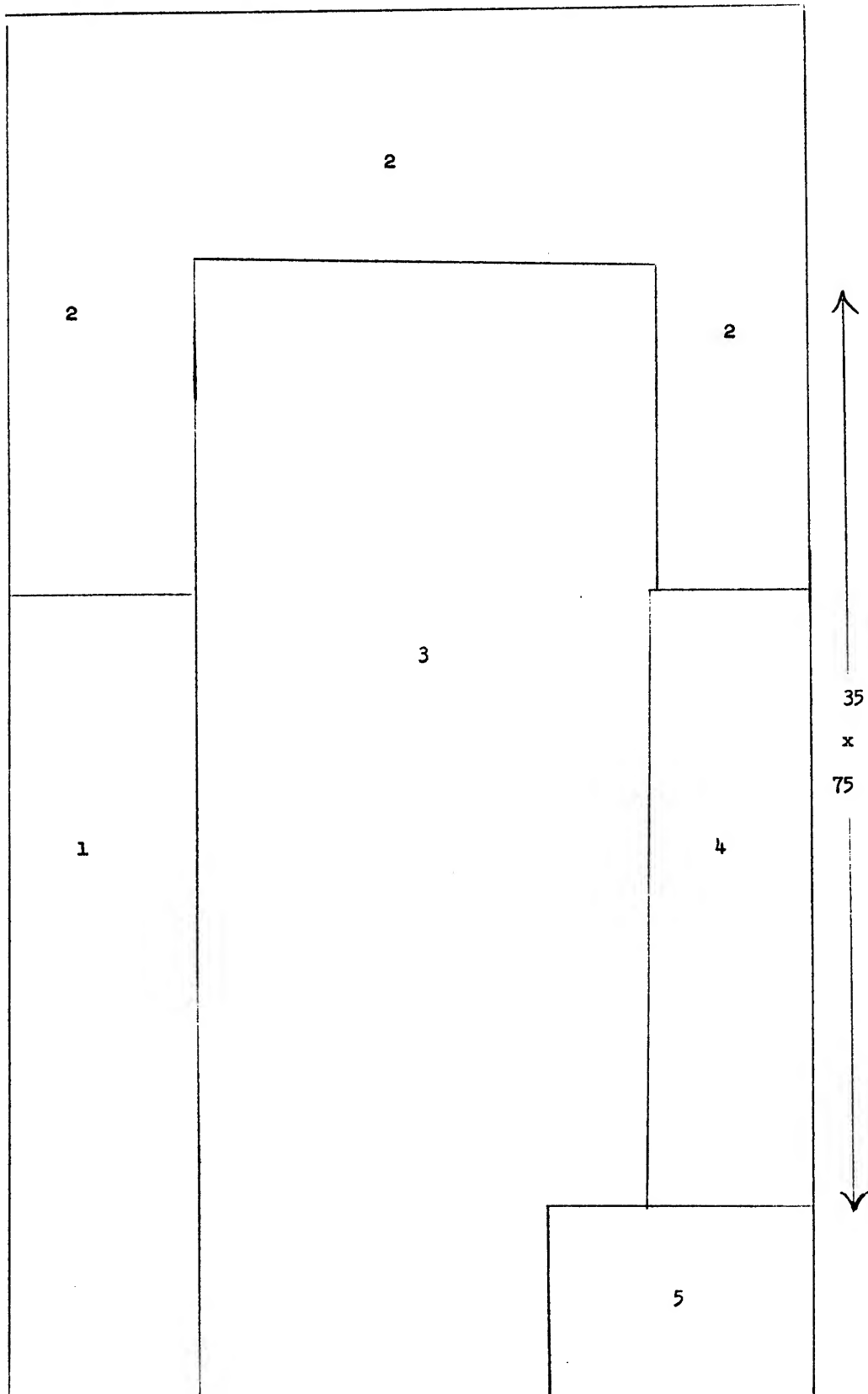
C-O-N-F-I-D-E-N-T-I-A-L

25X1

- 27 -

Sketch No. 13

Die-stamping "without pattern" shop of Krasnyy Proletariy Lathe Plant



C-O-N-F-I-D-E-N-T-I-A-L

25X1

25X1

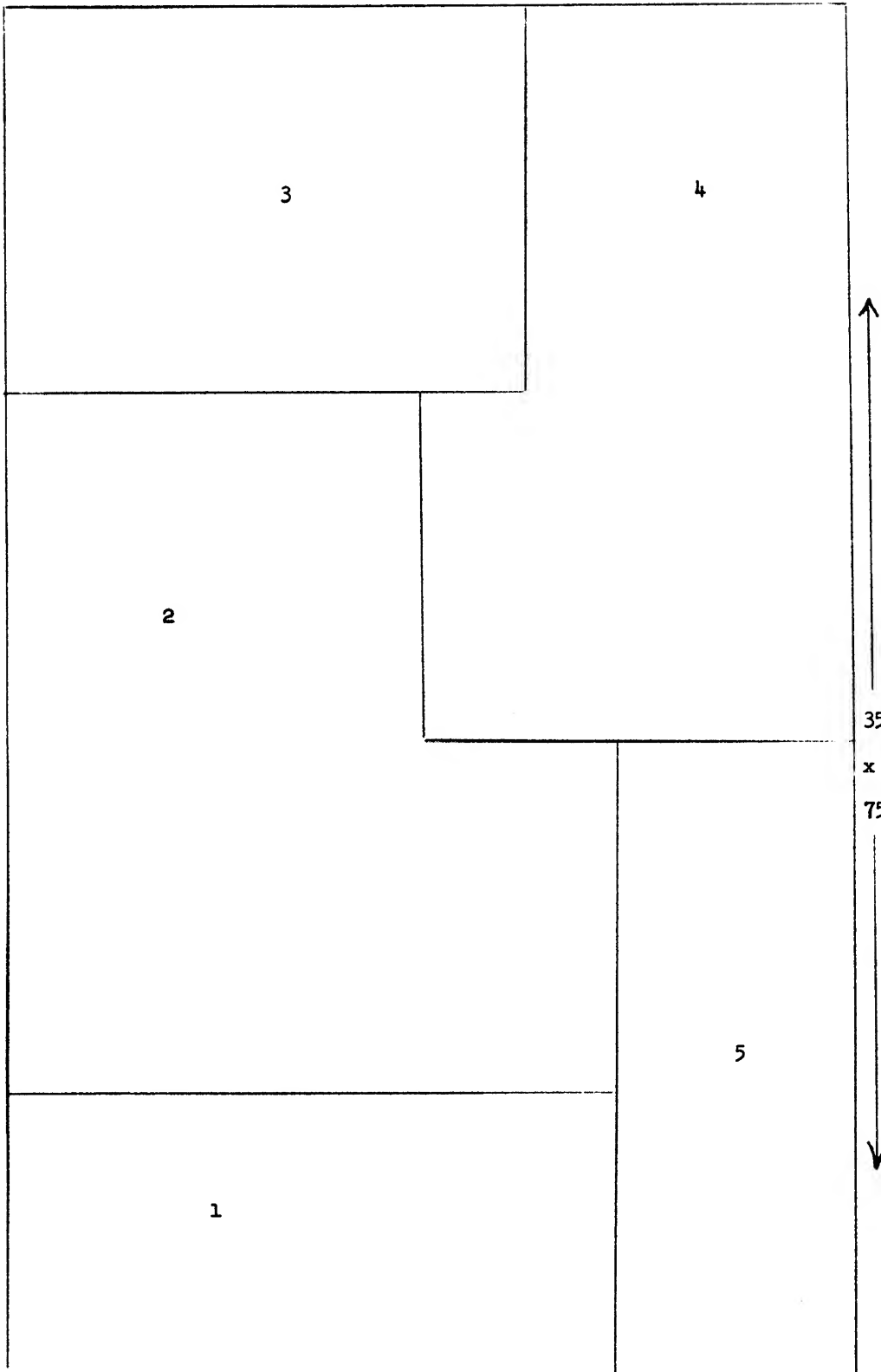
C-O-N-F-I-D-E-N-T-I-A-L

25X1

- 28 -

Sketch No. 14

Fitting and Assembly of Apparatus Cabinets



C-O-N-F-I-D-E-N-T-I-A-L

25X1

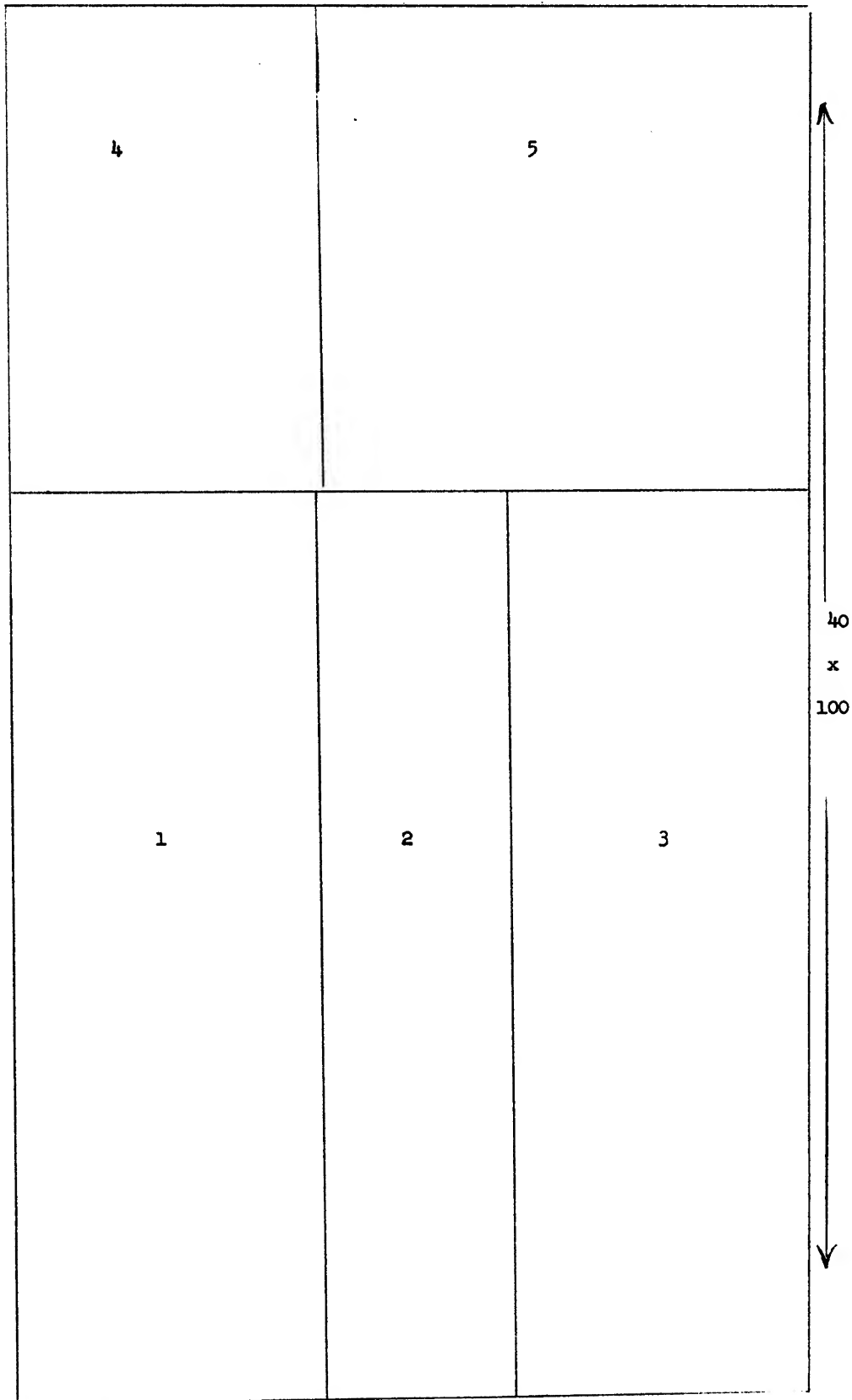
C-O-N-F-I-D-E-N-T-I-A-L

25X1

Sketch No. 15

- 29 -

Saw, straightening and die-stamping "with pattern" shop.



C-O-N-F-I-D-E-N-T-I-A-L

25X1

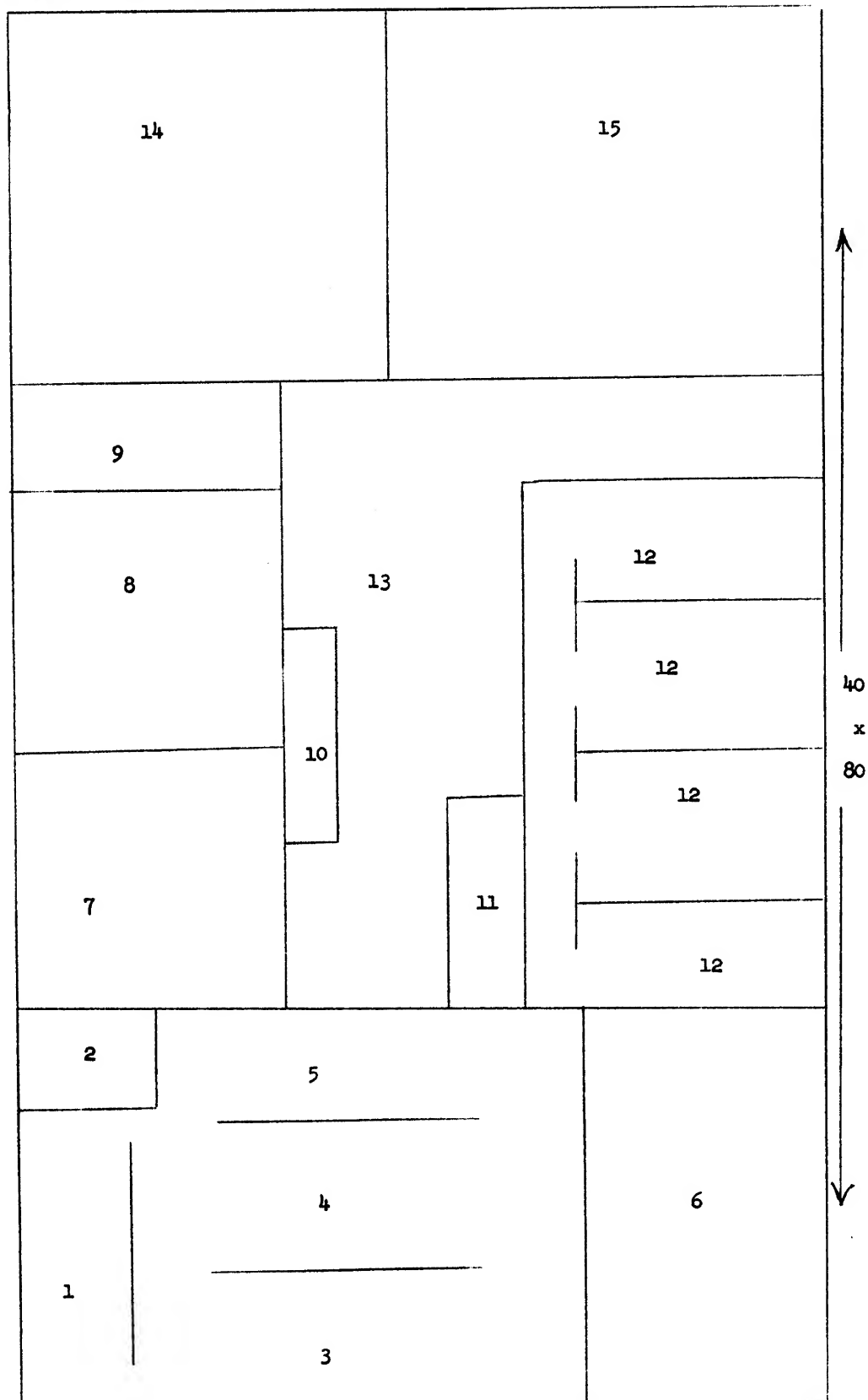
C-O-N-F-I-D-E-N-T-I-A-L

25X1

- 30 -

Sketch No. 16

Carpentry boiler and engraving shop



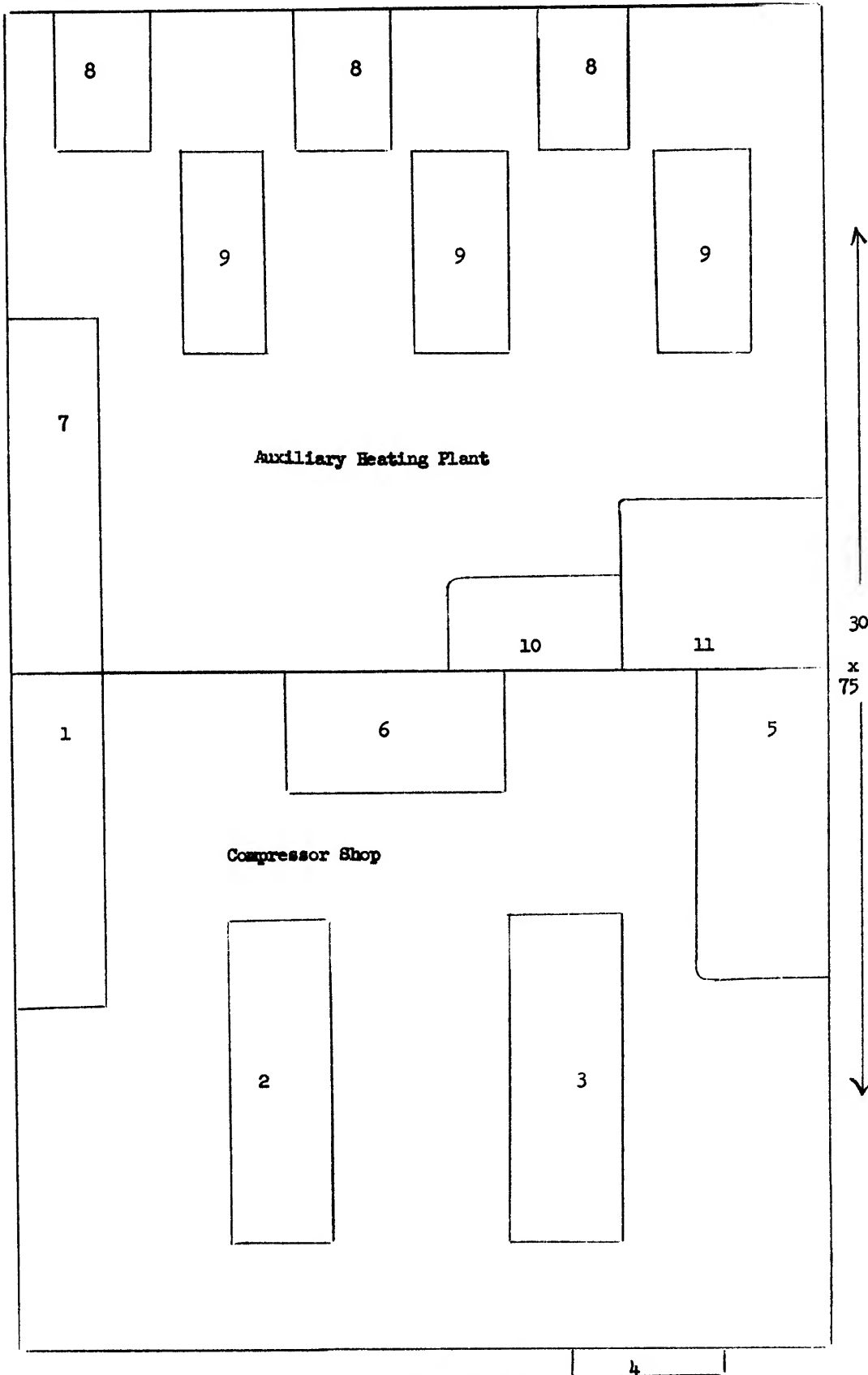
C-O-N-F-I-D-E-N-T-I-A-L

25X1

C-O-N-F-I-D-E-N-T-I-A-L

25X1

- 31 -

Sketch No. 17

C-O-N-F-I-D-E-N-T-I-A-L

25X1

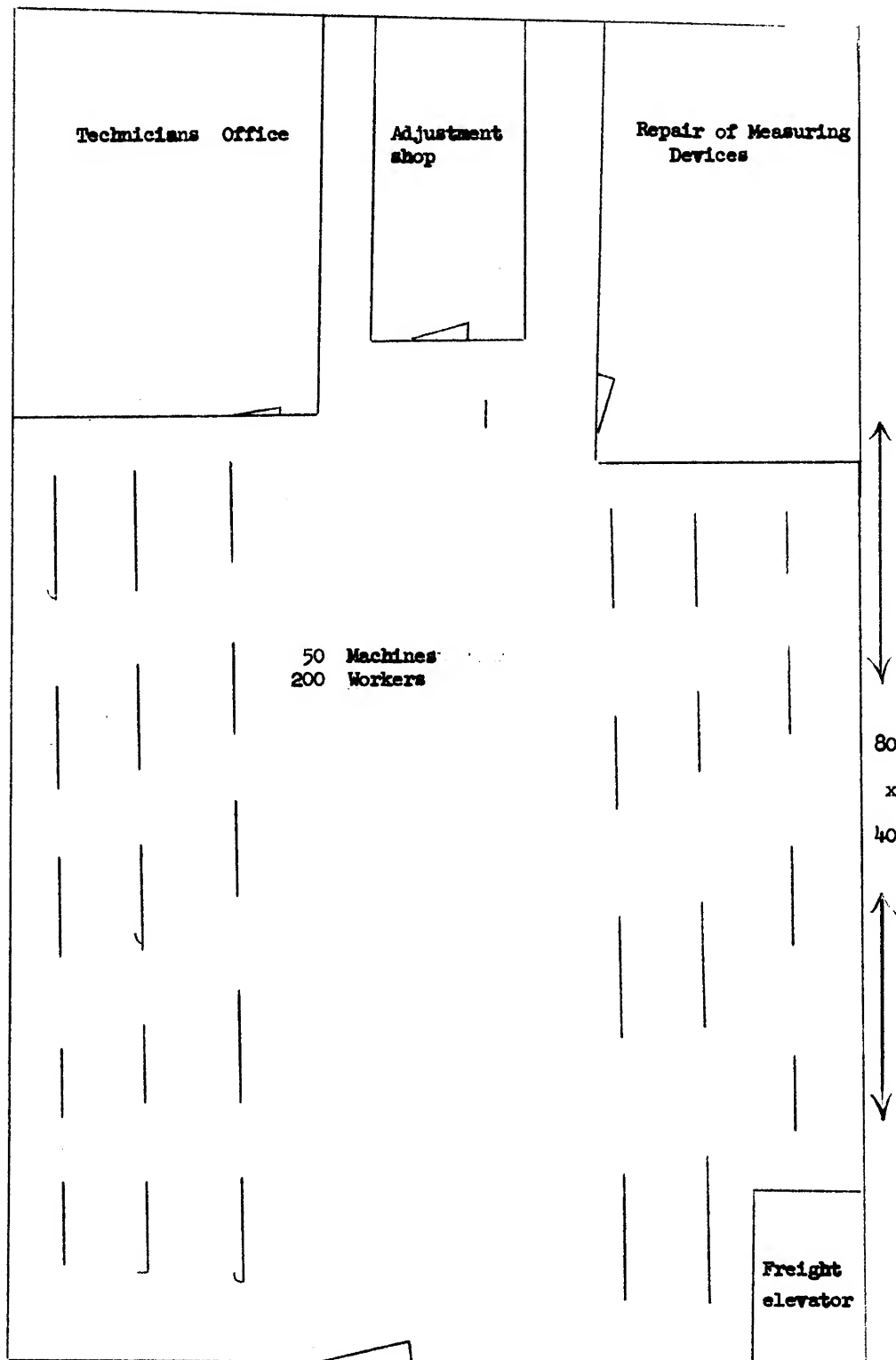
C-O-N-F-I-D-E-N-T-I-A-L

25X1

- 32 -

Sketch No. 18

Instrument Shop --first floor

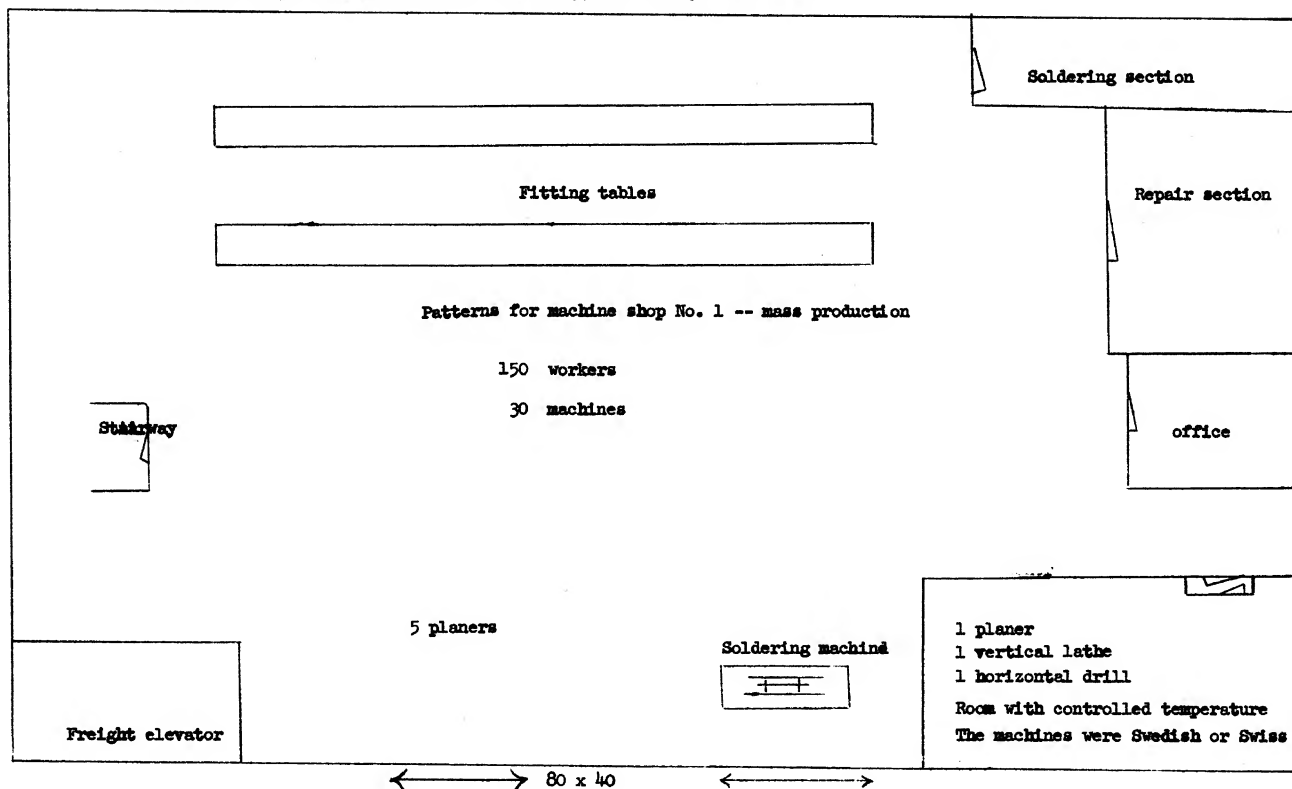


C-O-N-F-I-D-E-N-T-I-A-L

25X1

Sketch No. 19

Pattern Shop for Mass Production of Krasny Proletary Lathe Plant



25X1

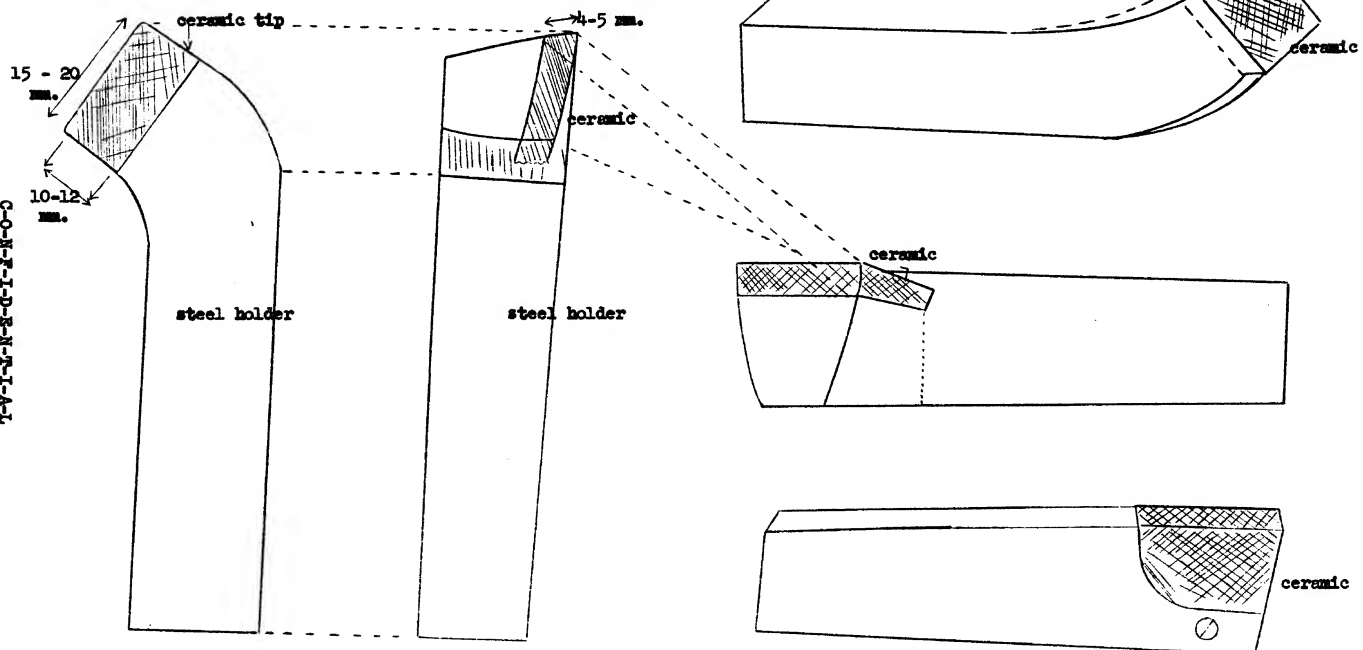
25X1

- 33 -

25X1

Sketch No. 20

Cutters with compressed ceramic tips



25X1

25X1

- 34 -

C-O-N-P-I-D-E-N-T-I-A-I